Laurent Kergoat

List of Publications by Year
in descending order

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69 papers	4,848 citations	94433 37 h-index	98798 67 g-index
80 all docs	80 docs citations	80 times ranked	5627 citing authors

#	Article	IF	Citations
1	Wind erosion response to past and future agro-pastoral trajectories in the Sahel (Niger). Landscape Ecology, 2022, 37, 529-550.	4.2	3
2	Woody plant decline in the Sahel of western Niger (1996â€“2017):is it driven by climate or land use changes?. Journal of Arid Environments, 2022, 200, 104719.	2.4	3
3	Spatio-temporal dynamics of suspended particulate matter in the middle Niger River using in-situ and satellite radiometric measurements. Journal of Hydrology: Regional Studies, 2022, 41, 101106.	2.4	1
4	Contrasting responses of woody and herbaceous vegetation to altered rainfall characteristics in the Sahel. Biogeosciences, 2021, 18, 77-93.	3.3	11
5	Environmental determinants of E. coli, link with the diarrheal diseases, and indication of vulnerability criteria in tropical West Africa (Kapore, Burkina Faso). PLoS Neglected Tropical Diseases, 2021, 15, e0009634.	3.0	7
6	An unexpectedly large count of trees in the West African Sahara and Sahel. Nature, 2020, 587, 78-82.	27.8	212
7	Drought-induced regime shift and resilience of a Sahelian ecohydrosystem. Environmental Research Letters, 2019, 14, 105005.	5.2	12
8	Potential of SWOT for Monitoring Water Volumes in Sahelian Ponds and Lakes. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2019, 12, 2541-2549.	4.9	19
9	Changes in rainfall distribution promote woody foliage production in the Sahel. Communications Biology, 2019, 2, 133.	4.4	49
10	Influence of Floods and Growth Duration on the Productivity of Wet Grasslands of Echinochloa stagnina (Retz) P. Beauv. in an East African Floodplain. Wetlands, 2019, 39, 935-944.	1.5	2
11	Reduction of tree cover in West African woodlands and promotion in semi-arid farmlands. Nature Geoscience, 2018, 11, 328-333.	12.9	94
12	Impact of Agropastoral Management on Wind Erosion in Sahelian Croplands. Land Degradation and Development, 2018, 29, 800-811.	3.9	28
13	Modelling the growth of floodplain grasslands to explore the impact of changing hydrological conditions on vegetation productivity. Ecological Modelling, 2018, 387, 220-237.	2.5	6
14	Potential of SWOT for Monitoring Water Volumes in Sahelian Ponds and Lakes. , 2018, , .		1
15	AMMAâ€CATCH, a Critical Zone Observatory in West Africa Monitoring a Region in Transition. Vadose Zone Journal, 2018, 17, 1-24.	2.2	49
16	Evolution of Surface Hydrology in the Sahelo-Sudanian Strip: An Updated Review. Water (Switzerland), 2018, 10, 748.	2.7	70
17	Modeling Surface Runoff and Water Fluxes over Contrasted Soils in the Pastoral Sahel: Evaluation of the ALMIP2 Land Surface Models over the Gourma Region in Mali. Journal of Hydrometeorology, 2017, 18, 1847-1866.	1.9	15
18	A 60â€year reconstructed highâ€resolution local meteorological data set in Central Sahel (1950â€“2009): evaluation, analysis and application to land surface modelling. International Journal of Climatology, 2017, 37, 2699-2718.	3.5	15

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19	Influence of dryâ€season vegetation variability on Sahelian dust during 2002â€“2015. Geophysical Research Letters, 2017, 44, 5231-5239.	4.0	18
20	Modelling spatial and temporal dynamics of gross primary production in the Sahel from earth-observation-based photosynthetic capacity and quantum efficiency. Biogeosciences, 2017, 14, 1333-1348.	3.3	16
21	Analysis of Suspended Particulate Matter and Its Drivers in Sahelian Ponds and Lakes by Remote Sensing (Landsat and MODIS): Gourma Region, Mali. Remote Sensing, 2017, 9, 1272.	4.0	21
22	The Surface Energy Budget Computed at the Gridâ€Scale of a Climate Model Challenged by Station Data in West Africa. Journal of Advances in Modeling Earth Systems, 2017, 9, 2710-2738.	3.8	18
23	The paradoxical evolution of runoff in the pastoral Sahel: analysis of the hydrological changes over the Agoufou watershed (Mali) using the KINEROS-2 model. Hydrology and Earth System Sciences, 2017, 21, 4591-4613.	4.9	45
24	Monitoring water turbidity and surface suspended sediment concentration of the Bagre Reservoir (Burkina Faso) using MODIS and field reflectance data. International Journal of Applied Earth Observation and Geoinformation, 2016, 52, 243-251.	2.8	39
25	Spatiotemporal variability in carbon exchange fluxes across the Sahel. Agricultural and Forest Meteorology, 2016, 226-227, 108-118.	4.8	27
26	Changes in lakes water volume and runoff over ungauged Sahelian watersheds. Journal of Hydrology, 2016, 540, 1176-1188.	5.4	41
27	Assessing woody vegetation trends in Sahelian drylands using MODIS based seasonal metrics. Remote Sensing of Environment, 2016, 183, 215-225.	11.0	87
28	Changes in Sahelian annual vegetation growth and phenology since 1960: A modeling approach. Global and Planetary Change, 2016, 143, 162-174.	3.5	10
29	Can we use surface wind fields from meteorological reanalyses for Sahelian dust emission simulations?. Geophysical Research Letters, 2015, 42, 2490-2499.	4.0	56
30	Modelling the effect of soil moisture and organic matter degradation on biogenic NO emissions from soils in Sahel rangeland (Mali). Biogeosciences, 2015, 12, 3253-3272.	3.3	19
31	Dry-season vegetation mass and cover fraction from SWIR1.6 and SWIR2.1 band ratio: Ground-radiometer and MODIS data in the Sahel. International Journal of Applied Earth Observation and Geoinformation, 2015, 39, 56-64.	2.8	21
32	Modeling vegetation and wind erosion from a millet field and from a rangeland: Two Sahelian case studies. Aeolian Research, 2015, 19, 97-111.	2.7	22
33	Comparing land surface phenology with leafing and flowering observations from the PlantWatch citizen network. Remote Sensing of Environment, 2015, 160, 273-280.	11.0	57
34	Rain-Use-Efficiency: What it Tells us about the Conflicting Sahel Greening and Sahelian Paradox. Remote Sensing, 2014, 6, 3446-3474.	4.0	81
35	Coupled estimation of surface heat fluxes and vegetation dynamics from remotely sensed land surface temperature and fraction of photosynthetically active radiation. Water Resources Research, 2014, 50, 8420-8440.	4.2	28
36	Re-greening Sahel: 30years of remote sensing data and field observations (Mali, Niger). Remote Sensing of Environment, 2014, 140, 350-364.	11.0	253

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37	Modeling wind erosion flux and its seasonality from a cultivated sahelian surface: A case study in Niger. Catena, 2014, 122, 61-71.	5.0	27
38	Monitoring dry vegetation masses in semi-arid areas with MODIS SWIR bands. Remote Sensing of Environment, 2014, 153, 40-49.	11.0	70
39	Surface response to rain events throughout the West African monsoon. Atmospheric Chemistry and Physics, 2014, 14, 3883-3898.	4.9	39
40	Actual evapotranspiration in drylands derived from in-situ and satellite data: Assessing biophysical constraints. Remote Sensing of Environment, 2013, 131, 103-118.	11.0	104
41	Evaluation of MODIS gross primary productivity for Africa using eddy covariance data. Remote Sensing of Environment, 2013, 131, 275-286.	11.0	125
42	The Niger River Niamey flood of 2012: The paroxysm of the Sahelian paradox?. SÃ©cheresse, 2013, 24, 3-13.	0.1	39
43	Land water storage variability over West Africa estimated by Gravity Recovery and Climate Experiment (GRACE) and land surface models. Water Resources Research, 2011, 47, .	4.2	76
44	Remote sensing of the land surface during the African Monsoon Multidisciplinary Analysis (AMMA). Atmospheric Science Letters, 2011, 12, 129-134.	1.9	12
45	Contrasted landâ€surface processes along the West African rainfall gradient. Atmospheric Science Letters, 2011, 12, 31-37.	1.9	23
46	Less rain, more water in ponds: a remote sensing study of the dynamics of surface waters from 1950 to present in pastoral Sahel (Gourma region, Mali). Hydrology and Earth System Sciences, 2010, 14, 309-324.	4.9	81
47	Observations of the Nocturnal Boundary Layer Associated with the West African Monsoon. Monthly Weather Review, 2010, 138, 3142-3156.	1.4	24
48	Precipitation as driver of carbon fluxes in 11 African ecosystems. Biogeosciences, 2009, 6, 1027-1041.	3.3	106
49	The AMMA Land Surface Model Intercomparison Project (ALMIP). Bulletin of the American Meteorological Society, 2009, 90, 1865-1880.	3.3	165
50	Surface thermodynamics and radiative budget in the Sahelian Gourma: Seasonal and diurnal cycles. Journal of Hydrology, 2009, 375, 161-177.	5.4	68
51	Multi-scale soil moisture measurements at the Gourma meso-scale site in Mali. Journal of Hydrology, 2009, 375, 241-252.	5.4	98
52	Rainfall regime across the Sahel band in the Gourma region, Mali. Journal of Hydrology, 2009, 375, 128-142.	5.4	85
53	AMMA-CATCH studies in the Sahelian region of West-Africa: An overview. Journal of Hydrology, 2009, 375, 3-13.	5.4	212
54	Response of surface energy balance to water regime and vegetation development in a Sahelian landscape. Journal of Hydrology, 2009, 375, 178-189.	5.4	76

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55	The AMMA-CATCH Gourma observatory site in Mali: Relating climatic variations to changes in vegetation, surface hydrology, fluxes and natural resources. Journal of Hydrology, 2009, 375, 14-33.	5.4	140
56	Seasonal variations of leaf area index of agricultural fields retrieved from Landsat data. Remote Sensing of Environment, 2008, 112, 810-824.	11.0	119
57	Spring phenology in boreal Eurasia over a nearly century time scale. Global Change Biology, 2008, 14, 603-614.	9.5	113
58	Analysis of the in situ and MODIS albedo variability at multiple timescales in the Sahel. Journal of Geophysical Research, 2008, 113, .	3.3	49
59	Nitrogen controls plant canopy lightâ€use efficiency in temperate and boreal ecosystems. Journal of Geophysical Research, 2008, 113, .	3.3	64
60	Large-scale overview of the summer monsoon over West Africa during the AMMA field experiment in 2006. Annales Geophysicae, 2008, 26, 2569-2595.	1.6	181
61	Remote sensing of spring phenology in boreal regions: A free of snow-effect method using NOAA-AVHRR and SPOT-VGT data (1982â€“2004). Remote Sensing of Environment, 2006, 101, 52-62.	11.0	231
62	Determination of phenological dates in boreal regions using normalized difference water index. Remote Sensing of Environment, 2005, 97, 26-38.	11.0	297
63	Calibration of a coupled canopy functioning and SVAT model in the ReSeDA experiment. Towards the assimilation of SPOT/HRV observations into the model. Agronomy for Sustainable Development, 2002, 22, 681-686.	0.8	13
64	Comparing global models of terrestrial net primary productivity (NPP): analysis of differences in light absorption and lightâ€use efficiency. Global Change Biology, 1999, 5, 56-64.	9.5	304
65	MUREX: a land-surface field experiment to study the annual cycle of the energy and water budgets. Annales Geophysicae, 1999, 17, 838-854.	1.6	41
66	Global-Scale Assessment of Vegetation Phenology Using NOAA/AVHRR Satellite Measurements. Journal of Climate, 1997, 10, 1154-1170.	3.2	317
67	Coupling satellite data with vegetation functional models: Review of different approaches and perspectives suggested by the assimilation strategy. International Journal of Remote Sensing, 1997, 15, 283-303.	1.0	34
68	The use of CO2 flux measurements in models of the global terrestrial carbon budget. Global Change Biology, 1996, 2, 287-296.	9.5	38
69	Revisiting historical climatic signals to better explore the future: prospects of water cycle changes in Central Sahel. Proceedings of the International Association of Hydrological Sciences, 0, 371, 195-201.	1.0	6